



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,882	12/11/2003	Wong Shue Kwan	CEWC 0101 PUS	8877
22045	7590	03/07/2006	EXAMINER	
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			KAYES, SEAN PHILLIP	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/733,882

Applicant(s)

KWAN, WONG SHUE

Examiner

Sean Kayes

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. Claim 7 recites the limitation "the battery" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 6158868) in view of Sekura (US 6198383.)
4. With respect to claim 1 Chien discloses a timepiece comprising: a battery (14 figure 2a) powered circuit for driving the display and determining a time; and one or more alternating current (AC) powered lights configured as a back light to the display, wherein the one or more AC powered lights function when plugged into an AC power source (While Chien provides a light for the purpose of lighting a room the same light inherently lights the time display such that it can be read.) Chien does not disclose a liquid crystal display (LCD); and a driver circuit for the LCD display. Sekura discloses a battery powered clock with an LCD display and a driver circuit for the LCD display and to keep time (column 4 lines 11-15.)

Art Unit: 2841

It should be noted that while Chien teaches away from the use of LCD displays, his arguments are not all inclusive. In particular Chien does not take into account consumer interests of visual attractiveness. Additionally LCD screens do not make as much noise as the analogue counterpart. Subsequently a person skilled in the art would recognize the limitation of Chien's arguments and design, with regard to LCD displays.

At the time of the invention it would have been obvious to one skilled in the art to combine Sekura's LCD display and LCD driver circuit with Chien's invention. The suggestion or motivation combining Sekura's LCD display and control means therefor would be to provide a more visually attractive and quieter display and the means for controlling said display.

With respect to claim 2 Chien in view of Sekura teaches the timepiece of claim 1, wherein the timepiece does not include a transformer or a rectifier circuit (figure 5b.)

5. With respect to claim 3 Chien in view of Sekura teaches the timepiece of claim 1 wherein the timepiece is a clock (Chien, figure 1.)

6. With respect to claim 4 Chien in view of Sekura teaches the timepiece of claim 2 wherein the clock is a digital clock (The time circuit is a digital time circuit as is evident in its use in conjunction with the LCD display.)

Art Unit: 2841

7. With respect to claim 5 Chien in view of Sekura teaches the timepiece of claim 1. Chien does not disclose wherein the one or more AC powered lights comprise one or more neon lights.

Chien does disclose using an electro-luminescent light source. A neon light is an electro-luminescent light source wherein the encased gas is neon. It is well known in the art to use neon for this purpose in electro-luminescent lights.

At the time of the invention it would have been obvious to one skilled in the art to use a neon light as Chien's electro-luminescent light source. The suggestion or motivation for doing so would be to use a well-developed and easily available technology thus reducing cost.

8. With respect to claim 6 Chien in view of Sekura teaches the timepiece of claim 1, wherein the one or more AC powered lights function only when plugged into the AC power source. (In the embodiment where Chien's electro0luminescent device is powered by only AC means, as described in column 2 lines 1-14, the device would clearly only generate light when plugged into the AC power source.)

9. With respect to claim 7 Chien in view of Sekura teaches the timepiece of claim 1 wherein the battery power is supplied by one or more AA batteries column 2 lines 29-39 of Chien, additionally Sekura teaches a 3V dry cell battery, column 4 lines 11-15, which would be equivalent to two 1.5 volt AA batteries in

Art Unit: 2841

series. Subsequently Sekura's circuit is compatible with Chien's teaching of AA batteries.)

10. With respect to claim 8 Chien in view of Sekura teaches the timepiece of claim 1. Chien does not disclose an alarm that progressively increases in volume as the alarm sounds.

Sekura teaches an alarm function. However, Sekura does not teach a continuously increasing volume alarm.

At the time of the invention it would have been obvious to one skilled in the art to combine Sekura's alarm function and subsequent alarm functional components (alarm circuit, alarm transducer, and the various buttons necessary to the operation of the alarm, i.e. snooze button) with Chien's invention. The suggestion or motivation for doing so would be to add the functionality of an alarm clock/timer.

Increasing volume alarm clock functions are well known in the art. The increasing volume alarm is a desirable function as it is less annoying. This is because it gives a user a chance to turn off the alarm function before it reaches a maximum volume level. At the time of the invention it would have been obvious to one skilled in the art to additionally modify Sekura's alarm as provided for Chien's invention to continuously increase in volume. The suggestion or motivation for doing so would be to prevent the alarm from being overly annoying.

Art Unit: 2841

11. With respect to claim 9 Chien in view of Sekura teaches the timepiece of claim 8 further comprising a snooze button that delays the alarm for a period of time. (The snooze button is provided as part of the improvement to Chien's invention by the inclusion of Sekura's alarm function, discussed above in rejection to claim 8.)

12. With respect to claim 10 Chien in view of Sekura the timepiece of claim 1 wherein the timepiece continues to determine the time while the battery is at least partially charged and remains in contact with the battery powered circuit. (So long as the battery has power the clock function will continue.)

13. With respect to claim 11 Chien in view of Sekura teaches a digital alarm clock comprising: a liquid crystal display (LCD); a battery; a battery powered digital clock circuit for driving the LCD and determining a time; and one or more alternating current (AC) powered neon lights configured as a back light to the LCD, wherein the one or more AC powered neon lights function only when plugged into an AC power source and the digital clock circuit functions only when connected to the battery. (The claim limitations are met by the device as described above.)

14. With respect to claim 12 Chien discloses the digital alarm clock of claim 11 wherein the digital alarm clock does not include a transformer or a rectifier circuit (figure 5b.)

15. Claims 13-14, 16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 6158868) in view of Sekura (US6198383) in further view of Kibiloski (US 6987710.)

16. With respect to claim 13 Chien in view of Sekura teaches a timepiece comprising: a housing (2, figure 1); a liquid crystal display (LCD); an alternating current (AC) powered back light to the LCD; a battery (14, figure 2); and a battery powered printed circuit board configured to drive the LCD and determine a time. The claim limitations are met in the device as described above, with the exception of the reflector limitation. Chien in view of Sekura does not teach a reflector located between the LCD and the backlight. Kibiloski teaches a reflector located between the time display (time display is an LCD in Chien as modified in view of Sekura) and the backlight (column 2 lines 18-26.)

At the time of the invention it would have been obvious to one skilled in the art to include Kibiloski's reflector with Chien's invention as modified in view of Sekura. It additionally would have been obvious to one skilled in the art to modify Chien's light in a way that it would function both as a backlight (in combination with the reflector) and as a night light. Multiple lights could be used, as taught by Chien (column 6 lines 38-46.) One such light could be used for illumination as taught by Kibiloski while another or plurality of other lights could be used as night lights. The suggestion or motivation for doing so would be to provide more evenly distributed light on the clock face as taught by Kibiloski while continuing to function as a nightlight.



Art Unit: 2841

17. With respect to claim 14 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 13 wherein the timepiece is a digital alarm clock. (The time circuit is a digital time circuit as is evident in it's use in conjunction with the LCD display.)

18. With respect to claim 16 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 13 wherein the timepiece does not include a transformer or a rectifier circuit. (Figure 5b.)

19. With respect to claim 17 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 13 wherein the AC powered back light comprises one or more neon lights powered by a conventional 120V 60 Hz or 220V 50 Hz power source (the lights are powered by a wall plug for which 120V at 60Hz and 220V at 50Hz are standard.)

20. With respect to claim 19 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 13 further comprising a plurality of switches connected to the battery powered printed circuit board and functioning to set the date, time, and alarm configuration of the timepiece. (Sekura's circuit contains said switches, which provide the functioning to set date, time, and alarm configurations. See figure 3a. Additionally see column 8 lines 15-37.)

Art Unit: 2841

21. With respect to claim 20 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 19 further comprising an alarm transducer and one or more capacitors connected to the battery powered circuit board. (The alarm as described by Sekura generates noise and necessarily includes a transducer. Batteries are a form of capacitor.)

22. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 6158868) in view of Sekura (US6198383) in further view of Kibiloski (US 6987710) in yet further view of the article found at [members.misty.com/don/oddbulb.html](http://members.misty.com/don/oddbulb.html).)

23. With respect to claim 18 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 17, wherein each neon light is connected in parallel (Chien, column 6 lines 43-46.) with all of the one or more neon lights. Chein does not disclose wherein each neon light is coupled in series with a resistance between 68 and 82 kilo-Ohms.

The article teaches using a resistance of 56 Kilo-ohms when connecting a neon light to a 120V power source. He continues to teach using a "somewhat higher value resistor" to prolong the life of the phosphor. At the time of the invention it would have been obvious to one skilled in the art to use a resistance of 68 kilo-Ohms with the neon light of Chien as modified in view of Sekura further modified in view of the article. The suggestion or motivation for doing so would be to prolong the life of the phosphor as taught by the article.

Art Unit: 2841

24. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 6158868) in view of Sekura (US6198383) in further view of Kibiloski (US 6987710) in yet further view of RTP (datasheets found at [rtpcompany.com/info/data](http://rtpcompany.com/info/data).)

25. With respect to claim 15 Chien in view of Sekura in further view of Kibiloski teaches the timepiece of claim 13. Chien in view of Sekura in further view of Kibiloski does not teach wherein the reflector comprises flame retardant polycarbonate (PC) and the housing comprises flame retardant acrylonitrile-butadiene-styrene (ABS). Chien does disclose that his device is intended to operate in the presence of fire (column 3 lines 5-12.) Therefor it would be obvious that Chien would at least desire his device to be flame resistant. Fire resistant substances are well known in the art. More specifically flame retardant polycarbonates and flame retardant acrylonitrile-butadiene-styrene are well-known flame retardants, as taught by RTP.

At the time of the invention it would have been obvious to one skilled in the art to use a flame retardant polycarbonate with the reflector to utilize the visual characteristic of the polycarbonate to provide flame resistance without destroying the functionality of the reflector. The suggestion or motivation for using a flame retardant polycarbonate with the reflector is help protect the device from fire while not destroying the reflective functionality of this part.

At the time of the invention it would have been obvious to one skilled in the art to at least partially construct the housing using flame retardant acrylonitrile-butadiene-styrene. The suggestion or motivation for doing so would

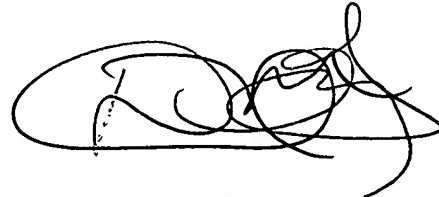
Art Unit: 2841

be to provide a sturdy flame retardant housing that would protect the device in case of fire so that the device could continue to provide illumination during a fire as taught by Chien.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Kayes whose telephone number is (571) 272-8931. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'D. Gray', with a large, stylized flourish extending from the end of the signature.

DAVID M. GRAY  
PRIMARY EXAMINER

SK  
3/2/06